BLACK BOX®
NETWORK SERVICES

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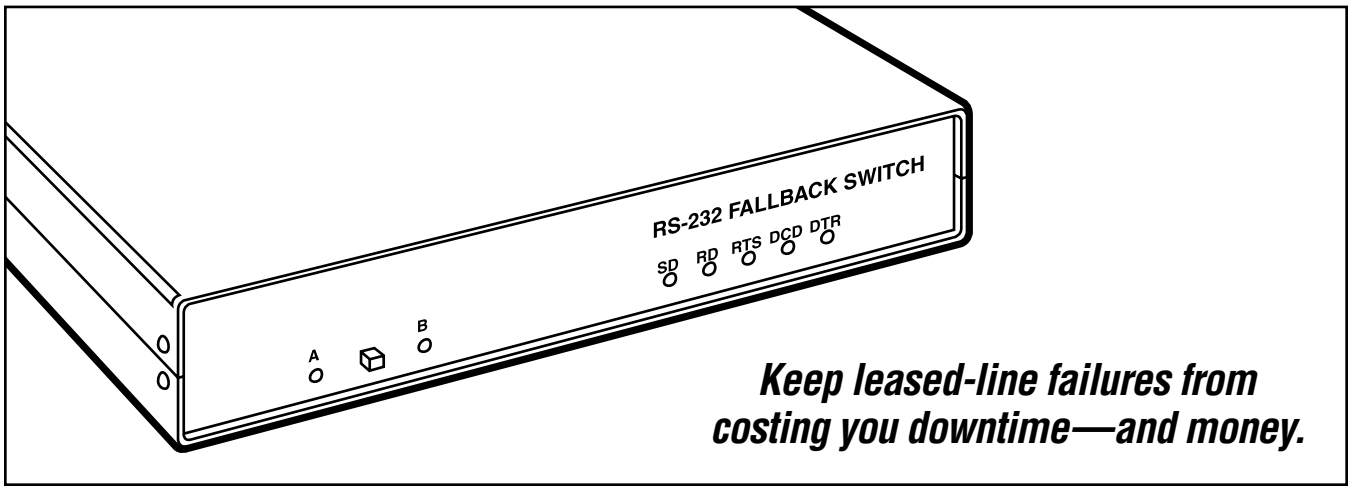
FALLBACK SWITCH (FBS), INDUSTRIAL



Keep leased-line failures from costing you downtime—and money.

Key Features

- ***Switches to a backup line when lapses in the primary line are detected.***
- ***Available with RS-232, V.35, and RS-530 interfaces.***
- ***Switch using a console command or manual pushbutton, or automatically upon alarm.***
- ***8-position modular cable included to connect the switch to an ASCII terminal.***
- ***Can be managed remotely via modem.***
- ***Password-protected control interface.***

Put an end to leased line lapses with the BLACK BOX® Fallback Switch (FBS), Industrial. With this standalone, remotely controllable A/B switch, you can establish a redundant line to carry your data if your primary line fails. Automatic switching occurs when the Fallback Switch detects a lapse on the primary line.

Available for RS-232/V.24, V.35, or RS-530 circuits, the Fallback Switch has three user data connectors (labeled "common," "A," and "B") as well as one 8-wire modular jack that supports 4-wire cabling for console control.

The type of user connectors depends on the model you order: you get DB25 female ports with the RS-232 and RS-530 versions, and M/34 female connectors with the V.35 models.

All offer switching flexibility. You can switch via console commands or manually by pressing a front-panel pushbutton, or by setting it up so it switches automatically upon an alarm condition.

An LED on the unit's front panel indicates the current Fallback Switch position, regardless of whether you switch with the button or from the console. The switch also has LEDs that indicate activity of the interface leads.

Its control interface firmware functions as the logical bridge between a management console (any ASCII terminal) and the Fallback Switch module, accepting switching commands from the console and relaying these commands to the module.

You can even use a single management console to control multiple switches—the Fallback Switch's addressing enables support up to eight units (although, because of signal loading, the practical limit may be as few as three units).

DIP switches on the Fallback Switch's main circuit board control its configuration parameters. With these, you can assign a unique address to each unit at a location, determine if multiple units will be supported, and determine the control port command-signaling rate. Configured as a DTE, the switch includes control signaling that may be required by a DCE, such as a modem.

Alarm-activated switching

Through the management console, you can program each data line to alarm on various interface leads, such as send or receive data, serial clock transmit and receive, request to send, and clear to send.

When you program the Fallback Switch to switch automatically upon alarm, the switch alerts you (or the operator) when a condition occurs on a specific interface. Or it can be set to switch automatically to a backup link upon alarm. Program it, for example, so a loss of carrier detect on the "A" connector triggers automatic switching to the "B"

side and a return of carrier detect on "A" triggers automatic switching back to "A."

The Fallback Switch even enables you to specify at what point an alarm is reported. Set it up so the condition causing the alarm must be present for a certain period of time (the "Time to Alarm") before the switch sends an alarm to the console. Likewise, you can also specify the time it takes to clear an alarm that's reported. With this function, the switch issues a "clear" report after the original alarm condition has been clear for a user-definable period of time.

Console-controlled data circuit alarming on both "A" and "B" connectors occurs independent of switch position.

Console-driven operation

To determine the status of any interface or switch the circuit, just access the Fallback Switch through the management console connection. You can view the physical-layer status of eight signals on the "A" connector and on the "B" connector regardless of the current switch position.

User-friendly help screens guide you through the process, and you use password-protected menus to access groups of switch commands.

These include groups for displaying and configuring switch alarms and defining alarms per interface; for switching and displaying switch status; and for turning on or off the leads status display on the management console. You can even disable front-panel control to ensure that all switching control comes from the console's user.

Also use the console menus to set up remote control of the Fallback Switch through a modem connection. The switch can be programmed to use this modem link to automatically dial a remote management terminal when an alarm occurs and "hang up" the modem when the transmission is completed.

The Fallback Switch stores all configuration-related commands, including switch settings, in battery-backed RAM.

Specifications

Approvals: FCC Part 15, UL®, CSA, CE

Leads Supported: 1 through 25

Maximum Data Rate: Depends upon cabling

Switches: (1) 2-position mode selector

Energy Rate: 6 VA

Receptacle: 3-prong grounding

Interface: SW111A: RS-232/V.24; SW115A: V.35; SW116A: RS-530

Connectors: All: (1) 8-pin RJ-45; SW111A, SW116A: (3) DB25 F; SW115A: (3) M/34 F

Indicators: (1) A, (1) B, (1) SD, (1) RD, (1) CD, (1) DTR, (1) RTS

Power: 100–120 VAC, 60 Hz

Size: 1.6"H x 8.4"W x 10.8"D (4.1 x 21.3 x 27.4 cm)

Weight: 4.8 lb. (2.2 kg)

What's included

- Fallback Switch (FBS), Industrial
- (1) modular 25-pin adapter (for the control port)
- (1) 6-ft. (1.8-m) 4-wire straight-through modular cable (for connecting a DB25 terminal/PC connector to a single switch)
- (1) power cord

NOTE: If you use a PC with a 9-pin connector, you'll need a a special adapter. Also, to cable a terminal or PC directly to a group of switches, use a DB25 ribbon cable. For ordering information on these, contact Black Box Tech Support.

Ordering Information

ITEM	CODE
Fallback Switch (FBS), Industrial	
RS-232/V.24	SW111A
V.35	SW115A
RS-530	SW116A
You might also want to order cables:	
RS-232 Cable (NEC® CL2)	ECM25C-0010-MF